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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/557,534	07/24/2006	Peter John Blamey	RICE-1004US	1999

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EXAMINER	
FAULK, DEVONA E	

ART UNIT	PAPER NUMBER
2614	

MAIL DATE	DELIVERY MODE
06/23/2010	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/557,534	BLAMEY ET AL.	
	Examiner	Art Unit	
	DEVONA E. FAULK	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 June 2010*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *11/21/05* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Double Patenting

1. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

2. Claims 1-10,14,18-20 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-10 of copending Application No. 10/445463. Although the conflicting claims are not identical, they are not patentably distinct from each other because the subject matter is similar in scope.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

3. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

4. Claims 11-13,15-17 are provisionally rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 11-13 of copending Application No. 10/445463. This is a provisional double patenting rejection since the conflicting claims have not in fact been patented.

10/557534	10/445463
1. A method for suppressing oscillation in	1. A method for suppressing oscillation in

a signal identified as or suspected of containing an oscillation, the method comprising: converting the signal into frequency bands in the frequency domain; applying, for a selected period of time, a randomly changing phase to the signal in at least one of said frequency bands; and reconverting the converted signal into an output waveform signal. 2. The method of claim 1, wherein said selected period is divided into a series of successive time windows, and for each successive time window a newly generated random or pseudo-random phase is applied to the signal. 3. The method of claim 1, in combination with a method for detecting oscillation due to feedback in said signal in each of said frequency bands, a randomly changing phase applied in each frequency band for which said oscillation has been detected. 4. The method of claim 3, wherein the randomly changing phase is applied in each frequency band to a gain value to be applied to the signal. 5. The method of claim 3, in which the oscillation detection technique comprises calculating, for each frequency band, the change in signal phase and/or signal amplitude from a time window to a subsequent time window, and comparing, for some or all of said frequency bands, the results of the calculation step to defined criteria to provide a measure of whether oscillation due to feedback is present in the signal. 6. The method of claims 3, in which the oscillation detection technique is a phase locked loop method. 7. The method of claim 3, in which the	a signal identified as or suspected of containing an oscillation, the method comprising the following steps: converting the signal into frequency bands in the frequency domain; applying, for a selected period of time, a randomly changing phase to the signal in at least one of said frequency bands; and reconverting the converted signal into an output waveform signal. 2. The method of claim 1, wherein said selected period is divided into a series of successive time windows, and for each successive time window a newly generated random or pseudo-random phase is applied to the signal. 3. The method of claim 1, further comprising the steps of detecting oscillation due to feedback in said signal in each of said frequency bands, and of applying a randomly changing phase in each frequency band for which said oscillation has been detected. 4. The method of claim 3, wherein the randomly changing phase is applied in each frequency band to a gain value to be applied to the signal. 5. The method of claim 3, in which the oscillation detection technique comprises calculating, for each frequency band, the change in signal phase and/or signal amplitude from a time window to a subsequent time window, and comparing, for some or all of said frequency bands, the results of the calculation step to defined criteria to provide a measure of whether oscillation due to feedback is present in the signal. 6. The method of claims 3, in which the oscillation detection technique is a phase

oscillation detection technique includes detection of a large sustained amplitude in a particular frequency band. 8. The method of claim 2, including, for a particular frequency band, generating a complex number with random or pseudo-random phase and amplitude 1.0 for each successive time window, and applying this complex number to the signal in that frequency band. 9. The method of claim 8, in which a real gain value for said frequency band is multiplied by said complex number before the gain is applied to the signal. 10. The method of claim 2, including, for a particular frequency band and in each successive time window, replacing the signal or signal gain with a signal or signal gain having equal amplitude and a random or pseudo-random phase. 11. An apparatus for suppressing oscillations in a signal identified as or suspected of containing an oscillation, comprising: means for converting the signal into frequency bands in the frequency domain; means for applying, for a selected period of time, a randomly changing phase to the signal in at least one of said frequency bands; and means for reconverting the converted signal into an output waveform signal. 12. The apparatus of claim 11, including means for dividing the signal into a series of successive time windows, and means for applying to the signal, for each successive time window, a newly generated random or pseudo-random phase. 13. The apparatus of claim 11, in combination with a means for detecting	locked loop method. 7. The method of claim 3, in which the oscillation detection technique includes detection of a large sustained amplitude in a particular frequency band. 8. The method of claim 2, including the step of, for a particular frequency band, generating a complex number with random or pseudo-random phase and amplitude 1.0 for each successive time window, and applying this complex number to the signal in that frequency band. 9. The method of claim 8, in which a real gain value for said frequency band is multiplied by said complex number before the gain is applied to the signal. 10. The method of claim 2, including the step of, for a particular frequency band and in each successive time window, replacing the signal or signal gain with a signal or signal gain having equal amplitude and a random or pseudo-random phase. 11. An apparatus for suppressing oscillations in a signal identified as or suspected of containing an oscillation, comprising: means for converting the signal into frequency bands in the frequency domain; means for applying, for a selected period of time, a randomly changing phase to the signal in at least one of said frequency bands; and means for reconverting the converted signal into an output waveform signal. 12. The apparatus of claim 1 including means for dividing the signal into a series of successive time windows, and means for applying to the signal, for each successive time window, a newly generated random or pseudo-random

oscillation due to feedback in said signal in each of said frequency bands, the means for applying arranged to apply a random phase in each frequency band for which said oscillation has been detected. 14. The apparatus of claim 13, in which the means for detecting oscillation comprises means for calculating, for each frequency band, the change in signal phase and/or signal amplitude from a time window to the next, and means for comparing, for some or all of said frequency bands, the results of the calculation to defined criteria to provide a measure of whether oscillation due to feedback is present in the signal. 15. The apparatus of claims 11, wherein the means for applying are arranged to apply the randomly changing phase in each frequency band to a gain value to be applied to the signal. 16. The apparatus of claim 13, in which the means for oscillation detection comprises phase locked loop circuitry. 17. The apparatus of claim 13, in which the means for oscillation detection comprises means for detection of a large sustained amplitude in a particular frequency band. 18. The apparatus of claim 13, including including means for dividing the signal into a series of successive time windows, and means for applying to the signal, for each successive time window, a newly generated random or pseudo-random phase, and means for generating a complex number with random or pseudo-random phase and amplitude 1.0 for each successive time window, and means for applying this complex number to the signal	phase. 13. The apparatus of claim 11, further comprising a means for detecting oscillation due to feedback in said signal in each of said frequency bands, and wherein the means for applying are arranged to apply a random phase in each frequency band for which said oscillation has been detected. 14. The apparatus of claim 13, in which the means for detecting oscillation comprises means for calculating, for each frequency band, the change in signal phase and/or signal amplitude from a time window to the next, and further comprising means for comparing, for some or all of said frequency bands, the results of the calculation step to defined criteria to provide a measure of whether oscillation due to feedback is present in the signal. 15. The apparatus of claim 11, wherein the means for applying are arranged to apply the randomly changing phase in each frequency band to a gain value to be applied to the signal. 16. The apparatus of claim 13, in which the means for oscillation detection comprises phase locked loop circuitry. 17. The apparatus of claim 13, in which the means for oscillation detection comprises means for detection of a large sustained amplitude in a particular frequency band. 18. The apparatus of claim 12, including means for generating a complex number with random or pseudo-random phase and amplitude 1.0 for each successive time window, and means for applying this complex number to the signal in that

in that frequency band. 19. The apparatus of claim 18, including means for multiplying a real gain value for said frequency band by said complex number before applying the gain to the signal. 20. The apparatus of claim 13, including including means for dividing the signal into a series of successive time windows, and means for applying to the signal, for each successive time window, a newly generated random or pseudo-random phase, and means for, for a particular frequency band and in each successive time window, replacing the signal or signal gain with a signal or signal gain having a random or pseudo-random phase.	frequency band. 19. The apparatus of claim 18, including means for multiplying a real gain value for said frequency band by said complex number before applying the gain to the signal. 20. The apparatus of claim 12, including means for, for a particular frequency band and in each successive time window, replacing the signal or signal gain with a signal or signal gain having a random or pseudo-random phase.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DEVONA E. FAULK whose telephone number is (571)272-7515. The examiner can normally be reached on 8 am - 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Vivian Chin can be reached on 571-272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Devona E. Faulk/
Primary Examiner, Art Unit 2614